

In The Claims:

Please delete claims 3 and 4.

Please add new claim 9 as follows:

Please amend claims 1 and 5 as follows:

9, 1. (amended) A process for producing pearlite from an iron containing article comprising the steps of, (a) heating an iron containing article comprising at least 50 wt % iron for a time and at a temperature sufficient to convert at least a portion of said article from a ferritic structure to an austenitic structure, (b) exposing said austenitic structure, for a time sufficient and at a temperature of about 727 to about 900°C, to a carbon supersaturated CO/H₂ environment having a carbon activity greater than about 1, to diffuse carbon into said austenitic structure and (c) cooling said iron containing article to form a continuous pearlite structure.

2. The process of claim 1 wherein said iron containing article further comprises silicon, manganese, and mixtures thereof.

3. (deleted)

4. (deleted)

5. (amended) The process of claim 1 wherein the H₂ in CO ranges from about 2.5 vol % to about 90 vol %.

6. The process of claim 1 wherein said time sufficient to diffuse carbon into the austenitic structure ranges from about 1 minute to about 50 hours.

7. The process of claim 6 wherein said thickness of pearlite is at least about 10 microns.